AMENDMENT TO THE SPECIFICATION

On page 5, please amend the paragraph starting on line 6 as follows:

Of course, if the rotor, during said second period of time, passes through a position that is not the correct one, it also means that there has been some error, and then said microcontroller turns off the control system 2 by means of an error signal.

On page 5, please add the following paragraphs after the paragraph starting on line 9 as follows:

As can be seen from this flowchart, after having started the rotor, the system will read the position detector and will be turned off if the time spent at the same position (also called as second period of time) is longer than the maximum time expected, said step being continuously repeated until a change in the position of the rotor is sensed, provided that the time spent at this instant position is not longer than the maximum expected time.

The next step, after the system has detected that the position of the rotor has been changed, is to evaluate if a correct position has been reached by the rotor, if not, the system will be turned of, and alternatively if the rotor is at the correct position, then the system will actuate the next phase of the motor.

After this step, the system will calculate if one complete turn of the rotor has been reached and, if it happens to be the case, the system will read the rotor's speed and calculate a new value for the minimum and maximum times, during which a change in the position of the rotor should take place. The counter will be reset afterwards.

If the rotor has not reached a complete turn, then the system will read the position detector and will turn off the control system if the position of the rotor has been changed; if this

is not the case, the system will measure if the time spent on that certain position is shorter than the minimum expected time (also called as first period of time), if this is the case, the system will continuously repeat to read the position detector. If the time spent on that certain position is longer than the minimum expected time, than the system will return to the step of reading the position detector to monitor it the rotor has not spent a time **at** this position for a period of time longer than the maximum expected time (second period of time).

Please delete the Abstract and replace with the following:

A method for controlling and protecting electric motors, specially permanent magnet motors electronically actuated by a control system. The system includes a three-phase inverting bridge, in which the position of the rotor can be monitored by using a position detector physically attached to the axle or through the tension induced in the coils by the magnet, in order to correctly control actuation by the control system. The present invention is also directed to a system for controlling electric motors and an electric motor system. The system includes continuously reading the position detector until a minimum expected time has passed. After the minimum expected time has passed, there is continuous reading of the position detector until a maximum expected time has passed to detect if a position change of the rotor is sensed.